



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
In re Patent Application of:

Inventor: OKA, et al  
Group Art Unit: 1756  
Application No.: ~~10~~/602,622  
Conf. No.: 2391  
Examiner: Thorl Chea  
Filed: June 25, 2003  
Title: PHOTOTHERMOGRAPHIC MATERIAL

DECLARATION UNDER 37 C.F.R. §1.132

Commissioner for Patents  
(P.O. Box 1450  
Alexandria, VA 22313-1450)

Sir:

I, Seichi Yamamoto, do declare and state as follows:

I graduated from Tohoku University with a Master's Degree in Chemistry in March 1990;

I joined Fuji Photo Film Co., Ltd. in April 1990, and since that time I have been engaged in research and development in the field of silver halide photosensitive materials for printing, and since March 2000, in the field of silver halide photosensitive materials for medical use at

Ashigara Laboratory;

I am a co-inventor of the subject matter disclosed and claimed in the above-identified application; and

I am familiar with the Office Action of September 24, 2004, and understand that the Examiner has rejected Claims 1-9 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Ito (US Patent No. 6,376,167) and Ikari (US Patent No. 6,482,583) and Claims 10-20 under 35 U.S.C. § 103(a) as being unpatentable over Ito (US Patent No. 6,376,167).

The following additional comparative experiments were carried out by me or under my supervision in order to make the advantages of the subject matter clearer.

#### Experiment A

Samples A, B, C and D were prepared in the same manner as Sample 13 of Example 1 described in Applicants' Specification except that the polyhalogen compounds of Samples A, B, C and D were replaced with the polyhalogen compounds (1)-34, (1)-35, (3)-34 and (3)-35 of Ito (US Patent No. 6,376,167), respectively.

Samples 13 and A, B, C and D were processed and evaluated in the same manner as in Example 1 described in Applicants' Specification..

The results obtained are listed in following Table 1.

TABLE 1

Sample No.	Poly-halogen compd.	Sensitivity	$\Delta$ Fog	Printout performance	Remarks
13	1 & 2	104	0.01	0.01	Present Invention
A	(1)-34 (from Ito)	110	0.05	0.06	Comparative Example
B	(1)-35 (from Ito)	111	0.05	0.07	Comparative Example
C	(3)-34 (from Ito)	109	0.05	0.06	Comparative Example
D	(3)-35 (from Ito)	108	0.05	0.06	Comparative Example

As seen in Table 1 above, inclusion of the polyhalogen

compounds of the present invention (Sample 13) were unexpectedly superior in sensitivity, printout performance and fogging during storage when compared to the use of the polyhalogen compounds of Ito.

#### Experiment B

Sample 8a, 8b, 8c, 9a, 9b, 9c, 10-1, 10-2, 10-3, 10-4 and 10-5 were prepared in the same manner as in Example 4 described in Applicants' Specification, except that the doped metals in the photosensitive halide emulsion were changed to those as shown in Table 2 below.

Samples 8a, 8b, 8c, 9a, 9b, 9c, 10-1, 10-2, 10-3, 10-4 and 10-5 were processed and evaluated in the same manner as in Example 4 described in Applicants' Specification.

The results obtained are listed in following currently amended Table 2.

TABLE 2

Sample No.	First Metal	Second Metal	Dmin	Sensitivity	Printout performance	Remarks
3a	Ir	-	0.17	100	0.11	Comparative Example
3b	-	Fe	0.17	103	0.10	Comparative

						Example
3'	Ir	Fe	0.16	107	0.07	Present Invention
10-1	Ir	Au	0.18	110	0.12	Comparative Example
5a	Cu	-	0.17	101	0.10	Comparative Example
5b	-	Fe	0.17	102	0.10	Comparative Example
5'	Cu	Fe	0.16	105	0.07	Present Invention
10-2	Cu	Au	0.18	109	0.11	Comparative Example
6a	Fe	-	0.17	101	0.10	Comparative Example
6b	-	Pt	0.17	102	0.10	Comparative Example
6'	Fe	Pt	0.16	106	0.08	Present Invention
7a	Os	-	0.17	100	0.10	Comparative Example
7b	-	Fe	0.17	103	0.10	Comparative Example
7'	Os	Fe	0.16	106	0.07	Present Invention

10-3	Os	Au	0.18	110	0.11	Comparative Example
8a	Ru	-	0.17	104	0.11	Comparative Example
8b	-	Fe	0.17	103	0.10	Comparative Example
8c	Ru	Fe	0.17	106	0.07	Present Invention
9a	-	-	0.18	98	0.12	Comparative Example
9b	-	Cu	0.17	101	0.11	Comparative Example
9c	Ru	Cu	0.05	104	0.06	Present Invention
10-4	-	Au	0.19	109	0.12	Comparative Example
10-5	Fe	Au	0.19	109	0.11	Comparative Example

Note: For "Au", Potassium chloroaurate, which is typical as an Au-sensitizer, was used, and substituted at an amount of equimolar of Fe compound.

As shown in Table 2, the samples employing the present invention exhibited unexpected superiority in comparison to Samples 10-2, 10-3, 10-4 and 10-5, in which Au and another

metal was simultaneously doped.

#### Conclusions

The present invention showed unexpectedly greater improvements in sensitivity, printout performance and fogging during storage than the comparative examples.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

DATE:

January 19. 2005

Seiichi Yamamoto

SEIICHI YAMAMOTO